

ABSTRACT OF THE DISCLOSURE

A process for the isomerization of a feedstream comprising C₅-C₆ hydrocarbons where the process involves charging hydrogen and a feedstream comprising at least normal C₅-C₆ hydrocarbons into an isomerization zone and contacting said hydrogen and
5 feedstream with an isomerization catalyst at isomerization conditions to increase the branching of the feedstream hydrocarbons and produce an isomerization effluent stream comprising at least normal pentane, normal hexane, methylbutane, dimethylbutane, and methylpentane has been discovered. The catalyst used is a solid acid catalyst comprising a support comprising a sulfated oxide or hydroxide of at least an element of Group IVB
10 (IUPAC 4) of the Periodic Table, a first component selected from the group consisting of at least one lanthanide-series element, mixtures thereof, and yttrium, and a second component selected from the group of platinum-group metals and mixtures thereof.